18. The gallium-containing nitride crystal of claim **1**, comprising an oxygen content as a substitutional impurity less than about 1 parts per million.

19. The gallium-containing nitride crystal of claim **1**, wherein the gallium-containing nitride crystal is semi-insulating.

20. The gallium-containing nitride crystal of claim **1**, wherein the room temperature resistivity is from 10^7 ohm-centimeters to 10^{12} ohm-centimeters.

21. The gallium-containing nitride crystal of claim **1**, wherein the crystal is free-standing.

22. A bulk gallium-containing nitride crystal, comprising:

a wurtzite structure;

an impurity concentration greater than about 10^{15} cm^{-3} of at least one of Li, Na, K, Rb, Cs, Ca, F, and Cl;

a concentration of oxygen from about 10^{10} atoms per cubic centimeter to about 10^{17} atoms per cubic centimeter;

a compensatory dopant selected from V, Cr, Mo, W, Mn, Re, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, and a combination of any of the foregoing, wherein the concentration of the compensatory dopant is between about 10^{14} cm^{-3} and about 10^{16} cm^{-3};

an optical absorption coefficient less than about 2 cm^{-1} at wavelengths between about 395 nm and about 460 nm; and

an electrical resistivity at room temperature greater than about 10^7 ohm-centimeter.

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